

Cleaning up the Cleaners

State businesses have teamed up with DNR to reduce pollution from chemicals

Wisconsin State Journal :: BUSINESS :: C1

Sunday, April 20, 2003

Richard W. Jaeger Wisconsin State Journal

Wisconsin dry-cleaners are cleaning up their act and the environment, ahead of many other parts of the country.

Along with replacing that lingering odor of dry-cleaning solvent from your clothes with odorless, environmentally friendly chemicals, dry-cleaners are spending hundreds of thousands of dollars on equipment that makes the process safer for the environment.

At the heart of the industry's odor and air pollution problems is perchloroethylene, or perc, a chemical that has been used in dry-cleaning since the 1930s. The nonflammable synthetic solvent is considered by many to be a hazardous waste and is under review in parts of the country.

The federal Environmental Protection Agency views perc as a possible carcinogen but allows its use with certain restrictions. Air and water pollution are the biggest concerns although advances have been made in dry-cleaning machinery using perc.

Los Angeles dry-cleaning establishments are under orders by California air quality officials to phase out the use of the chemical by 2020. All newly installed dry-cleaning equipment there must use non-perc technology.

Some Wisconsin dry-cleaners, without the threat of law, are doing exactly that now.

Many of the nearly 700 dry-cleaning establishments in the state are now using petroleum or silicon-based cleaning solvents or a carbon dioxide (CO₂) process, according to the Wisconsin Fabricare Institute in Greenfield.

The new solvents follow a dry-cleaning process similar to the longtime industry standard. Water and solvents are used to remove dirt from the clothing, which is then dried, either in the same machine or a separate one.

Some of the new solvents cannot be used in a perc machine. That's because perc is heavier than water and is removed from the cleaning cylinder from the bottom while the new chemicals go to the top.

"The new machines handling the new chemicals also have more filters and are overall safer," said Steven Klinke, director of Klinke Cleaners in Madison.

The carbon dioxide dry-cleaning process is different. Clothing is immersed in liquid CO₂ in a highly pressurized cylinder and agitated by high-velocity fluid jets to remove soils. Garments cleaned in a CO₂ machine are dried by the high-velocity spin cycle.

While some of the machines using new solvents are comparable in size to perc machines, CO₂ dry-cleaning equipment is larger and more expensive.

Madison area dry-cleaners are among those making changes. One of the first was Best Cleaners, 5704 Raymond Road, which got rid of its perc machines and began using the silicon-based GreenEarth solvent last July. The change cost nearly \$100,000.

Klinke Cleaners, which has 14 stores in the Dane County area, has spent about \$500,000 to switch to a hydrocarbon-based solvent and process including the installation of non-perc machines.

According to Richard Klinke, operations manager, the firm is awaiting delivery of the final six machines from Italy. One of those will go into Klinke's 15th store, which will open later this year on South Park Street at the Fish Hatchery Road intersection.

Klinke's calls its environmental process the Earth Smart Systems.

Madison's newest cleaner, Hangers Cleaners, will open at 2301 Advance Road on Tuesday, which is Earth Day. Hangers, a national franchise, is owned and operated locally by Hang'em Clean of Plover, which operates other stores in the Fox Valley.

Hangers uses carbon dioxide, which has drawn high marks in Consumer Reports' tests for its cleaning results. It is also believed to be the most environmentally safe system since it produces no pollutants.

The move in Wisconsin to focus on environmental improvements in the dry-cleaning industry began in 1994 when the Fabricare Institute, a trade association representing some two-thirds of the state's dry-cleaners, entered into a pollution prevention partnership with the state Department of Natural Resources and the Department of Commerce.

At the same time, the fabric care group, with the help of UW-Extension's solid and hazardous waste education center, established a certification program for dry cleaning operators, managers and workers based on environmental practices.

Under the program, those seeking certification are tested on state and federal laws pertaining to hazardous chemical spills and cleanups, knowledge of handling cleaning solvents and ability to operate and maintain the machinery used in their plants.

Wisconsin dry-cleaners also established a Five Star Environmental Recognition Program that honors dry-cleaners for their additional environmental efforts, such as recycling hangers and plastic garment packaging.

Mark McDermid, a dry-cleaning section specialist for the DNR, had high praise for the industry in the state.

"Most of them are small mom-and-pop kinds of businesses, which is probably why they have shown such great concern for their communities and want to be a part of keeping a clean neighborhood," McDermid said.

He pointed to the Drycleaners' Environmental Response Fund, established by the businesses around the state in 1996 to provide money to clean contaminated sites.

"It is sort of a mini-superfund they established on their own," McDermid said. Each business contributes 1.8 percent of its dry-cleaning revenues and pays a tariff on the solvents used.

The fund, McDermid said, totals about \$3.8 million, collected by the state Department of Revenue and administered by the DNR.

In the past, some cleaners dumped chemical waste in trash containers or on the ground, but today's handling of solvent waste "gets priority attention," said Steven Klinke. He said detailed records must be kept, all spills or problems must be reported and inspected, and only certified and licensed disposal companies can be used.

"We feel many of those problem issues are being addressed by the new processes and equipment we are using. There is better mileage out of the new solvents, less chance of polluting the air or ground and the wastes can be recycled and used," Steven Klinke said. "In the end, we all benefit and the cost savings help offset the expense without having to pass them on to the customer."

He said the average cost of dry-cleaning a man's suit and woman's dress at Klinke's Cleaners is \$11. The average cost of washing and pressing a shirt is \$1.90. Under the new processes, he said, those costs won't increase.

"And, the customer gets cleaner, more pleasant smelling and fresher feeling clothes," Richard Klinke added.